

**Notice of Allowability**

Application No.

10/814,716

Applicant(s)

LE, QUANG

Examiner

Julie Anne Watko

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 07/24/2007.
2. ☒ The allowed claim(s) is/are 32-41.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 07/24/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a third ferromagnetic pole layer formed on the second ferromagnetic layer having a tapered tip proximate a pole tip region, the tapered tip recessed from the air-bearing surface; in combination with a laminated write pole tip layer formed coplanar to and adjacent the third ferromagnetic pole layer for providing a flux path from the third ferromagnetic pole layer to the air-bearing surface; layer and further in combination with a non-magnetic material configured to completely encircle and encapsulate the laminated write pole tip layer on four sides, the non-magnetic material being formed between the laminated write pole tip layer and the first ferromagnetic pole layer, on a first and second side of the laminated write pole tip layer and on a top side of the laminated write pole tip and further in combination with a first and a second ferromagnetic stud formed at the sides of the laminated write pole tip layer, the first and a second ferromagnetic stud further connecting the first pole piece and the write shield layer for providing in-line and side magnetic shields, absent impermissible hindsight reasoning.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The drawings were received on July 24, 2007. These drawings are not acceptable.

See attached PTO-948 Notice of Draftsperson's Patent Drawing Review.

The appearance of Fig. 7 is inconsistent with the appearance of Fig. 9, insofar as Fig. 9 shows P2 recessed from the ABS, and the supposed ABS view of Fig. 7 shows P2 exposed.

The Examiner objects to the replacement drawings insofar as lead lines cross one another as forbidden by 37 C.F.R. 1.84(q) (see Figs. 7, 13A, 14A-16B, 17B, 18B and 19B, for example), and reference numerals cross lines as forbidden by 37 C.F.R. 1.84(p)(3) (see Figs. 16B and 17B, for example).

## **INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

### **Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

### **Annotated Drawing Sheets**

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

### **Timing of Corrections**

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Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hu et al (US PAP No. 20050083605 A1) shows a tapered pole (see Fig. 3) encapsulated by non-magnetic material on 4 sides (see Fig. 4) in a perpendicular recording write head with side shields 31a-b.

Sato et al (US PAP No. 20020135937 A1) show a thin film magnetic head comprising a laminated pole tip (see especially Fig. 30).

Hsu et al (US PAP No. 20050068678 A1) show a head for perpendicular magnetic recording with side shields and a pole tip encapsulated by non-magnetic material on 4 sides (see Figs. 2-3) and has a common assignee and inventor with the instant application.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

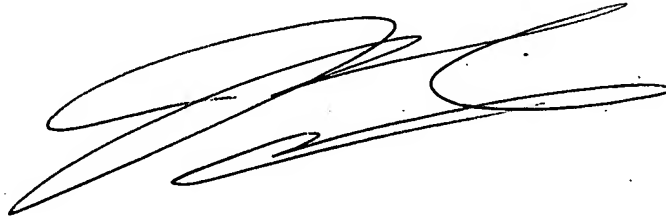
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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597. The examiner can normally be reached on Mon & Fri, 9:30AM to 7:30PM, Tues-Thurs after 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Julie Anne Watko  
Primary Examiner  
Art Unit 2627

September 6, 2007  
JAW

A handwritten signature in black ink, appearing to read 'JAW', is written over the printed name and title of the examiner.